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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,999	12/28/2005	Raoul Monnier	PF030094	3555
24498 7590 10/16/2007 JOSEPH J. LAKS, VICE PRESIDENT THOMSON LICENSING LLC PATENT OPERATIONS PO BOX 5312 PRINCETON, NJ 08543-5312			EXAMINER HU, RUI MENG	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 10/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/562,999

Applicant(s)

MONNIER ET AL.

Examiner

RuiMeng Hu

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments regarding the drawing objection have been fully considered but they are not persuasive. Figures 1 and 3 are objected to because of fails to label each element/feature descriptively, an ordinary skilled person in the art would not recognize/understand the structures of figures 1 and 3 without reading the description, therefore it is troublesome to have a quick analysis of figures 1 and 3. For example in figure 3, an ordinary skilled person in the art would not recognize/understand that the block 4 interrelates the block 4. Therefore figures 1 and 3 are objected to because of fails to label each element descriptively. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

### ***Response to Amendment***

#### ***Drawings***

3. Figures 1 and 3 are objected to because of fails to label each element descriptively. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the

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description: "the jammer 8". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

5. Claim 2 is objected to because of the following informality:

a) Replace "carry" with --carrier--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Takeuchi et al. (JP 2003-133974)** in view of **Teruya et al. (JP 02067827)**.

Consider **claim 1**, Takeuchi et al. clearly disclose a method of demodulating a signal in a receiver/decoder (paragraphs 7, 10-11, 14-19) comprising a tuner (figure 1, pocket television 43) including a local oscillator (oscillator 62), a demodulator (demodulator 67), the signal being susceptible to interferences due to the coexistence of a digital telephone base (paragraphs 18-19, the frequency of local oscillator 62 is manageable (tunable) as to be at different frequency of oscillator 48, so no active

jamming frequency is generated that may interfere the cellular phone 42, and avoiding/preventing any active jamming frequency from the cellular phone 42), shifting by one or more intervals the frequency of the local oscillator (the frequency of local oscillator 62 is tuned until the absence of the interference) until the absence of the interference (jamming frequency), and restoring the signal by compensating it for any shifts of the local oscillator (the signal outputted from mixer 63 after the frequency shifts of the local oscillator 62 is automatically compensated through processing stages 66 and 67, thus the output TV image and sound quality is maintained).

However, Takeuchi et al. fail to specifically disclose the demodulator including an error indicator, indicating by an error signal given by the error indicator of the demodulator the presence of an interference, shifting the frequency of the local oscillator until the error signal indicates the absence of the interference.

In the same field of endeavor, Teruya et al. disclose a wireless radio frequency transceiver (abstract, figure 4) comprising a demodulator (demodulator 36) including an error indicator (adjacent channel interference detector 37), indicating by an error signal given by the error indicator of the demodulator the presence of an interference (detector 37 detects the presence of the click noise due to the interference of the adjacent channel), shifting by one or more intervals the frequency of the local oscillator until the error signal indicates the absence of the interference (the local oscillation frequency is adjusted until the absence of the click noise).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by

Teruya et al. into the art of Takeuchi et al. as to eliminate the interference by first indicating the presence of the interference, and efficiently manage the frequency of oscillator 62 until the absence of the interference.

**Claims 2-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Takeuchi et al. (JP 2003-133974)** in view of **Teruya et al. (JP 02067827)** and **Badger (US Patent 5748046)**.

Consider **claim 2**, Takeuchi et al. clearly disclose a receiver/decoder (paragraphs 7, 10-11, 14-19) comprising a tuner including a local oscillator (figure 1, oscillator 62), a demodulator (demodulator 67) including a carrier recovery loop (demodulator 67 may include a carrier recovery loop, wherein it is well known in the art that a digital television demodulator comprises a carrier recovery loop), means for controlling the shifting of the frequency of the local oscillator 62 to prevent a jamming frequency/an interference signal due to the coexistence of a telephone base 42, and means for controlling the shifting of the frequency of the local oscillator until the absence of interference (the frequency of local oscillator 62 is tuned until the absence of the interference).

However, Takeuchi et al. fail to specifically disclose the demodulator including an error indicator, indicating by an error signal given by the error indicator of the demodulator the presence of an interference, shifting the frequency of the local oscillator until the error signal indicates the absence of the interference.

In the same field of endeavor, Teruya et al. disclose a wireless radio frequency transceiver (abstract, figure 4) comprising a demodulator (demodulator 36) including an

error indicator (adjacent channel interference detector 37), indicating by an error signal given by the error indicator of the demodulator the presence of an interference (detector 37 detects the presence of the click noise due to the interference of the adjacent channel), shifting by one or more intervals the frequency of the local oscillator until the error signal indicates the absence of the interference (the local oscillation frequency is adjusted until the absence of the click noise).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Teruya et al. into the art of Takeuchi et al. as to eliminate the interference by first indicating the presence of the interference, and efficiently manage the frequency of oscillator 62 until the absence of the interference.

However, Takeuchi et al. fail to specifically disclose a carrier recovery loop, wherein the carrier recovery loop restores the signal by compensating it for the shifting of the local oscillator.

In the same field of endeavor, Badger discloses a digital satellite television receiver (column 2 lines 57-59, column 8 lines 35-59, figure 1) comprising a demodulator (figure 4, QPSK demodulator 11) wherein the demodulator includes a carrier recovery loop (figure 4, carrier recovery loop 1111), wherein the carrier recovery loop restores the signal by compensating it for the shifting of the local oscillator (figures 1 and 4, the carrier recovery loop 1111 restores the signal by compensating it for the shifting of the local oscillator 911).



Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Badger into the art of Takeuchi et al. as to include the carrier recovery loop 1111 in the demodulator 67 as for improving output signal quality.

Consider **claim 3 as applied to claim 2**, Takeuchi et al. as modified by Teruya et al. and Badger clearly disclose wherein the frequency shift of the local oscillator is effected in shifting the value of it by one or more synthesis intervals (the frequency shift of the local oscillator 62 is effected in shifting the value of it by one or more synthesis intervals).

Consider **claim 4 as applied to claim 3**, Takeuchi et al. as modified by Teruya et al. and Badger clearly disclose wherein the frequency shift of the local oscillator is at most equal to a shift automatically compensatable for by the demodulator (the frequency shift of the local oscillator 62 is at most equal to a shift automatically compensatable for by the demodulator 67).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RuiMeng Hu whose telephone number is 571-270-1105. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

*RuiMeng Hu*

R.H./rh

October 10, 2007

  
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